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AMO's Response to *A Strategy for the Development of New Biomedical Waste Management Facilities in Ontario*

Association of Municipalities of Ontario

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MISSION STATEMENT

AMO unites Ontario's municipalities.

We take pride in promoting, supporting and enhancing strong and effective municipal government.

We provide strategic leadership by:

- developing and effectively promoting responsive quality policy;
- informing and educating governments, the media and the public;
- marketing innovative and beneficial services.

Our elected representatives, municipal officials and association staff form a team which values and respects:

- diversity and local autonomy;
- fairness and equity;
- consultation;
- consensus;
- co-operation.

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EXECUTIVE SUMMARY

On June 3, 1992, the Ministry of the Environment (MOE) and the Ministry of Health (MOH), in co-operation with the Ontario Hospital Association (OHA) released a consultation paper, *A Strategy for the Development of New Biomedical Waste Management Facilities in Ontario* (the *Strategy*).

The management of medical wastes has not been a major municipal concern in the past. However, the proposed strategy outlined in the consultation paper would have some impacts on existing municipal waste management operations.

Currently, about 150,000 tonnes of medical wastes are generated annually. About 40% of this waste is treated in hospital incinerators and the residual ash is disposed of in municipal solid waste landfills. The other 60% is exported to Quebec and the USA for treatment and disposal. The consultation paper argues that only 10% of all medical waste generated is hazardous enough to require special treatment prior to disposal. Therefore, it is proposed that 90% of medical waste should be allowed to go directly to municipal solid waste landfills.

The division of medical waste into two streams (that requiring treatment and that which can go directly to landfill) is to be determined according to a new proposed definition of biomedical waste. The proposed definition would mean municipal waste disposal personnel and facilities would be handling more untreated medical waste. It is therefore imperative that municipalities be included in further consultations on the development of a new definition of biomedical waste.

A second potential impact of the *Strategy* on municipal waste management operations is the disposal of biomedical wastes treated in regional facilities. If municipal landfills are to be the disposal sites for biomedical wastes which have been treated in regional facilities, then service area boundaries in the designated landfills' Certificates of Approval will have to be amended since the regions served by biomedical facilities are larger than the service areas of municipal landfills.

AMO agrees that the development of a biomedical waste strategy should focus on ensuring that treatment

and disposal methods which are implemented meet the objectives of being environmentally sound, cost-effective and efficient. However, the Association suggests that the proposed regional planning committees be given the flexibility to determine the appropriate number and scale of facilities to meet these objectives within their jurisdictions. AMO also suggests that regional planning committees include municipal land use, environmental and public health planning representatives.

While AMO supports the mechanics of the proposed biomedical waste management facility planning and approvals process, this process has no legislative support. AMO repeats its request for a new waste management act to provide this support. This act would also centralize and improve consistency across all waste management planning processes.

1 INTRODUCTION

On June 3, 1992, the Ministry of the Environment (MOE) and the Ministry of Health (MOH), in co-operation with the Ontario Hospital Association (OHA) released a consultation paper, *A Strategy for the Development of New Biomedical Waste Management Facilities in Ontario* (the *Strategy*).

AMO agrees with the need to develop a management strategy for biomedical waste to address concerns about current treatment practices. Most of the Association's comments on the *Strategy* relate to the proposed definition of biomedical waste and the proposed planning and approvals process.

The proposed definition of biomedical waste dramatically reduces the amount of medical waste which is currently treated. Although not stated in the paper, this would likely have impacts for municipal waste disposal personnel and facilities.

The main proposal of the *Strategy* is the creation of six regional planning committees which would be responsible for the planning of new biomedical waste facilities in accordance with terms of reference provided by the Province. These facilities would replace existing hospital incinerators. The *Strategy* provides the basis for the establishment of a planning and approvals process for biomedical waste management facilities which is independent of other waste management planning processes, including that for municipal solid waste facilities.

The Province is exploring a broad range of treatment methods for biomedical waste. Both incineration and non-incineration technologies are being examined. Non-incineration methods include microwave, autoclave (sterilization by steam), and Hammermill (shredding and chemical disinfection).

2 BACKGROUND

In April 1984, the MOE's Waste Management Branch established a Task Force on the Handling and Disposal of Biomedical Wastes. This included the MOE, MOH and the Ministry of Labour. This Task Force was

created because of the discovery of 4,000 bags of pathological waste at an industrial condominium, the adjoining room of which housed a food processing plant. The Task Force produced *Guidelines for the Handling and Disposal of Biomedical Wastes*, which was released later that year. In April 1986, *A Strategy for the Management of Biomedical Waste* was released by the Province.

In May 1991, AMO was informed that biomedical waste was excluded from Minister of the Environment Ruth Grier's statement banning future incineration.

On June 3, 1992, the Province released *A Strategy for the Development of New Facilities in Ontario.* In the paper, the MOE, MOH and OHA address the fact that Ontario is not self-sufficient in managing its biomedical waste, and that new biomedical waste treatment facilities are needed to replace existing hospital incinerators.

The paper states that Ontario generates about 150,000 tonnes of medical waste annually, but that less than ten percent of this is considered hazardous enough to warrant special treatment. "Universal precautions" at health care facilities have resulted in the larger treatment volumes.

Currently 60 percent of Ontario's biomedical waste is exported to Quebec or the USA. The remainder is burned in 92 Ontario hospital incinerators. The residual "bottom ash" from the incineration process is disposed of in municipal landfills. There has been increasing concern about air pollution from "fly ash" at these facilities, despite the fact that the emissions meet current Provincial regulations.

3 AMO'S PAST POSITIONS ON BIOLOGICAL AND PATHOLOGICAL WASTES

The management of medical waste has not been a major municipal concern in the past. Many of the issues are technical in nature, and thus AMO has not been heavily involved in the area. However, municipalities are involved in, and responsible for, municipal solid waste collection and disposal. Medical waste disposal falls within municipal waste management responsibilities.

In May 1985, and in response to a draft document of the MOE's Task Force on Pathological Waste Handling and Disposal, AMO produced a summary sheet entitled *The Role of Municipalities with Respect to Pathological Wastes.* This stated the following:

- To the extent that the collection, transportation and disposal of pathological wastes is a provincial responsibility, municipalities will support the Government of Ontario with its task by including, where deemed necessary by the municipality, reference to the provincial pathological waste collection and disposal system in municipal waste collection by-laws.

- Municipalities will cooperate with the Provincial Government inspection function by restricting pathological waste from municipal landfill sites.

- Municipalities will liaise and cooperate with the Ministries of Health, Labour, Environment, local Boards of Health, Associations and other public organizations.

- Municipalities will cooperate with the appropriate ministries of the Provincial Government in contingency planning for situations of pathological waste "spills".

4 GENERAL COMMENTS ON THE STRATEGY

AMO agrees with the need to develop a management strategy for biomedical waste to address concerns about current treatment practices. However, the consultation paper's proposed strategy would have some implications for existing municipal waste management practices.

Definition

Currently biomedical waste is considered a "pathological" hazardous waste in Regulation 309 under the Environmental Protection Act (EPA). However, the definition is not clear and has led to classification inconsistencies across the province.

The *Strategy* proposes a new definition which includes human body parts, infectious animal wastes, microbiological wastes, human fluid blood and blood products, sharps (eg. needles and blades), and wastes from patients with highly communicable diseases.

Hospitals are believed to generate 60 percent of these wastes, with the remainder coming from laboratories, clinics, doctors and dentists. The MOE, MOH and OHA are undertaking a Waste Quantities Study to collect more details on generation.

The proposed definition would mean that only 10% of biomedical waste which is currently being incinerated would require some form of treatment. Under the Provincial Government's incineration ban, the other 90% of non-hazardous medical waste could not be burned, and would be allowed to go directly to municipal solid waste landfills.

AMO has concerns about the potential implications this could have for municipal waste disposal personnel and facilities. It is therefore imperative that municipalities be included in further consultations on the development of a new definition of biomedical waste. Such a consultation would assist in ensuring that a final definition of biomedical waste is acceptable to municipalities.

Clarifications: AMO supports the Province's efforts in developing a clear and consistent definition of biomedical waste. The Association requests clarification from the Province on the classification and coverage of wastes generated by veterinary operations, humane societies, meat packaging operations, tattoo establishments, crematoriums and international airline stops in the province. It also requests clarification on the classification and required treatment of blood stained materials under the proposed definition.

Smaller generators

The *Strategy* does not mention the management of biomedical waste generated by households and other small generators. AMO suggests that a program be established by the Province whereby smaller generators could easily, safely and economically dispose of their biomedical wastes.

One possibility is the establishment of a biomedical "depot" system. Hospitals would be the most obvious location for community biomedical depot locations, which would then transfer these wastes to approved treatment facilities.

Some smaller generators of biomedical waste, such as clinics and doctors' offices, may be placing their

biomedical waste on the curb for municipal collection. In order to prevent this situation, some municipalities have passed bylaws which prohibit nonhazardous biomedical waste, but stronger provincial regulations are required. The Ontario Medical Association has also expressed concerns about the curbside pick-up and disposal of biomedical waste.[1]

5 COMMENTS ON THE STRATEGY'S PROPOSALS

5.1 Regional Facilities

AMO agrees that the development of a biomedical waste strategy should focus on ensuring that treatment and disposal methods which are implemented meet the objectives of being environmentally sound, cost-effective and efficient.

Facilities may have to be replaced for this to occur. Existing hospital incinerators have been criticized because they incinerate plastic, which was not foreseen when they were designed, and produce toxic byproducts. There have also been calls to lower the permitted levels of incinerator stack pollutants. If this was to occur, many incinerators would be unable to continue to operate.

Regional facilities may make the most sense when existing incinerators are replaced, even though the proposed restriction of the biomedical waste definition would mean a reduction in the volume of material needing treatment. New treatment technologies are being explored to meet higher standards, and they are costly. Thus, larger biomedical waste facilities may be necessary to achieve economies of scale. Reduced volume and increased costs suggest the need to consider the development of large regional biomedical waste management facilities.

However, the Province should allow regional planning committees the flexibility to utilize smaller or, in some cases, existing facilities. These committees should be able to determine the appropriate number and scale of facilities required to manage biomedical waste within their jurisdiction, in accordance with the objectives of the proposed strategy.

Transportation

An increase in regionalization of the treatment of biomedical waste means an increase in its transportation. Transportation should not become a weak link in the management of biomedical waste. To ensure this, regulations for the transportation of these wastes should be as strict or stricter than those that apply to other wastes which are classified as hazardous in Regulation 309 under the EPA. In particular, there should be a waybill system established to register the generators of biomedical wastes and to track its movement.

Furthermore, because of the high liquid component and odour problems of this waste stream, vehicles used to transport it should be leak-proof and refrigerated.

5.2 New Facilities

Role of private sector

AMO believes it is important to include the private sector in such initiatives. Such an approach should foster the development of the most innovative solutions. However, it is also important that province-wide minimum criteria are established for the proper construction and operation of these facilities. These criteria should apply equally to both public and private interests.

Also, the nature of the Provincial funding for the development of the facilities should be clarified in order that those private sector companies interested in the operation of these facilities can put forward creative options.

5.3 Planning Process

The *Strategy* proposes dividing the province into six planning regions. Each region would be required to develop a biomedical waste management plan through a committee which would be established for this purpose. The committee would be comprised of "representatives of the key generators of the biomedical waste stream."

Consistency in planning process

This proposal would create yet another independent environmental planning process. Others include the process requirements under the Planning Act, the Waste Management Systems Planning process (introduced in the MOE's Initiatives Paper No. 2), and the process

established under the Environmental Assessment Act. AMO is concerned that there is a potential for inconsistency and confusion in different planning processes. AMO is not advocating a Master Plan or EA process for biomedical waste facilities, but rather consistency in the basic planning requirements and guidelines of all waste management planning exercises.

Committee representation

AMO believes a wide range of interests should be included on the regional planning committees. Thus, a committee should include municipal land use, environmental and public health planners. It should also include an MOE and an MOH representative whose function would be to provide "one-window" for planning committee questions regarding Provincial policy and "one-voice" for Provincial responses to these questions and other Provincial comments.

Facility host representation

AMO believes that once the host community or communities have been selected as potential sites for biomedical waste management facilities, the interests of these communities should be fully appreciated and protected. One possible way of doing this is to ensure the regional planning committees are expanded or in some other way modified to include representatives of potential hosts. This might be done once the number of sites has been narrowed down to a reasonable few.

Committee structure

Regarding the regional planning committee structure, AMO believes it is unnecessary for the Province to decide which interest group should chair the committees and lead the planning processes. The *Strategy* suggests that hospitals, as principal generators of the waste stream, would fulfil this function. However, hospital administrators may not necessarily have the planning, public relations, or other skills necessary to perform this in a satisfactory manner. Such a decision may also alienate other interests which would otherwise be valuable contributors to the forum.

AMO suggests that once all of the parties and their representatives have been identified, these representatives should appoint the chair or co-chairs of the regional planning committee.

Consultation

The regional planning committee would be required to consult with the public. AMO agrees that public consultation is a key requirement for the development and implementation of this strategy. Waste management

consultation is a dynamic process as municipalities know from their experience siting solid waste landfill facilities. This means that at the initial stages of the planning process little interest will be generated in the region. Only when potential sites have been selected will residents become involved, and an overwhelming proportion of them will likely be opposed to the facility.

Consultation guidelines

AMO has two suggestions to overcome these difficulties. The first is to reach out to the residents of the region under study as early and as openly as possible. The Minister of the Environment, Ruth Grier, commented positively on the Regional Municipality of Waterloo's Master Plan efforts on outreach. The Province should formalize good public consultation techniques in a guide to assist any proponent involved in waste management facility planning.

Consistency in waste management planning process

Second, there should be consistency between the biomedical waste facility planning process and other waste management facility planning processes. Guides which are being developed for the proposed Waste Management Systems Plan program (described in the MOE's *Waste Management Planning in Ontario*), should be used as the basis for the planning of biomedical waste facilities. Such consistency would assist the in public making meaningful contributions to waste planning issues.

Single tier municipalities

AMO would also like the Province to explicitly recognize single tier municipalities as among those which would be able to sit as local/regional government representatives on the planning committees.

5.4 Regional Planning Committee Terms of Reference

The *Strategy* states that "the terms of the reference would mandate the committee to develop a plan according to the specific terms." Given the important role of public consultation, AMO urges the Province to decentralize this function and allow the regional planning committees to develop their own terms of reference in cooperation with the residents of the region. This would be consistent with the proposed Waste Management Systems Plan program.

Any minimum requirements the Province deems necessary for biomedical waste planning should be

placed in legislation, and not simply "provided" to planning committees in their terms of reference. Regional planning committees would be obligated to meet these requirements.

Also, regional planning committees might benefit from Provincial direction provided in the form of detailed Provincial waste management planning guideline documents. The committees should have the flexibility of modifying these guidelines depending on their own circumstances.

5.5 Strategy Support

AMO supports regulatory amendments to allow the MOH to fund non-incineration technologies and to amend and rename pathological waste as biological waste in Regulation 309 under the EPA.

Service area

Another regulatory issue not discussed in the Province's paper is that of service areas for the disposal of treated biomedical waste. If municipal landfills are to be disposal sites for treated biomedical waste, service area boundaries in the designated landfills' Certificates of Approval will have to be amended, since the proposed regions served by biomedical facilities are larger than the service areas of any municipal landfill. Certificate changes should be the responsibility of the Province. Alternatively, if special disposal facilities are to be used, the Province should be responsible for ensuring service areas are properly defined.

Provincially provided data

AMO is pleased that the Province will supply technical and cost data of new technologies to the regional planning committees. AMO has previously requested that similar data on reduction and recycling technologies be supplied to proponents undertaking Waste Management Master Plans.

Performance criteria stated up front

In order to allow for innovation in biomedical waste treatment, and yet protect the public health, the Province should formalize acceptable disposal characteristics or guidelines for treated biomedical waste. These would provide specific performance criteria which innovators could move towards.

5.6 Environmental Approvals

AMO supports the proposed environmental approvals process. This process states that if the procedure follows the plan of the regional planning committee and has the approval of the public, then only approval under Part V of the EPA would be necessary, and an Environmental Assessment (EA) process would not have to be undertaken.

Legislative framework required

The intent of the biomedical waste management planning process appears to be the avoidance of a full EA. While AMO agrees with this proposal, no legislative framework exists to support it, and thus the planning and approvals processes remain vulnerable. Without legislative support it will be possible for the EA Board to reject the biomedical waste planning process and impose new requirements on the regional planning committee.

The Province's introduction of the *Strategy* highlights the need for a new waste management act. *AMO's Response to Waste Management Planning in Ontario* recommended that a new waste management act should be created to support waste management planning processes. This act would incorporate the desired principles of the Environmental Assessment Act (EA Act), but would replace it for waste management planning exercises.

AMO believes this new act would also assist in ensuring consistency between different waste management planning exercises since they would all be centralized in one piece of legislation.

EPA hearings

The *Strategy* states that all proposals would be subject to an EPA hearing, but may not be subject to an EA hearing. AMO suggests that any EPA public hearing for a plan not requiring an EA Act hearing should only deal with technical issues and the mechanics of a committee's planning process. The rationale of the planning process used by the regional planning committees will be developed through a province-wide consultation process, and should be beyond the scope of the EPA hearing. This would prevent EPA hearings from digressing to EA-type hearings. A new waste management act could help clarify the purpose of hearings.

6 CONCLUSIONS

AMO is pleased to be able to provide input on the Province's biomedical waste management strategy consultation paper. The Association's main concerns have dealt with: providing a clear and functional definition of biomedical waste in consultation with municipalities, allowing flexibility regarding the number and size of regional biomedical waste treatment facilities, ensuring consistency between biomedical disposal facility service areas and current municipal landfill service areas, ensuring consistency throughout all waste management planning exercises, and creating a legislative framework to support the planning and approvals processes for all waste management facilities, including biomedical waste management facilities.

ENDNOTES

1. Correspondence from the OMA to then Deputy Minister of the Environment, Gary Posen, on March 12, 1990.

APPENDIX A: ACKNOWLEDGEMENTS

The Association of Municipalities of Ontario would like to thank the members of its Environmental Policy Committee who volunteered their time to produce this document. The members of the team were:

Mr. Mike Bradley
Mayor
City of Sarnia

Mr. Gary Cousins
Director of Planning and Development
County of Wellington

Mr. Harry Danford
Councillor
County of Hastings

Ms Dawn Erskine
Councillor
City of London

Ms Lorna Graham
Reeve
Township of Camden

Mr. David Hall
City Administrator
City of Peterborough

Mr. Dave Hunt
Mayor
City of Stratford

Ms Joan King
Councillor
Municipality of Metropolitan Toronto

Mr. Don Markle
Commissioner of Public Works
Region of Peel

Mr. Terry Mundell
Councillor
County of Wellington

Ms Ann Mulvale
Mayor
Town of Oakville

Mr. Frank O'Hagan
Alderman
City of North Bay

Mr. Lou Romano
Director of Pollution Control
City of Windsor

Mr. David Smith
Waste Management Engineer
City of St. Catharines

Mr. Jack Smylie
Alderman
City of North Bay

Mr. Les Tervit
Administrator
Town of Listowel

Observers:

Ms Cynthia Hyland
Executive Assistant
Association of Municipal
Recycling Coordinators

Ms Brenda Naylor
Project Manager
Energy Pathways Inc.

Staff:

Michael Suski
Interim Policy Assistant

Evelyn Ruppert
Senior Policy Analyst

Maria Pontes
Secretary to Policy